Electrochemical Sensing of Vitamin D_3: A Comparative Use of Glassy Carbon and Unmodified Screen-Printed Carbon Electrodes

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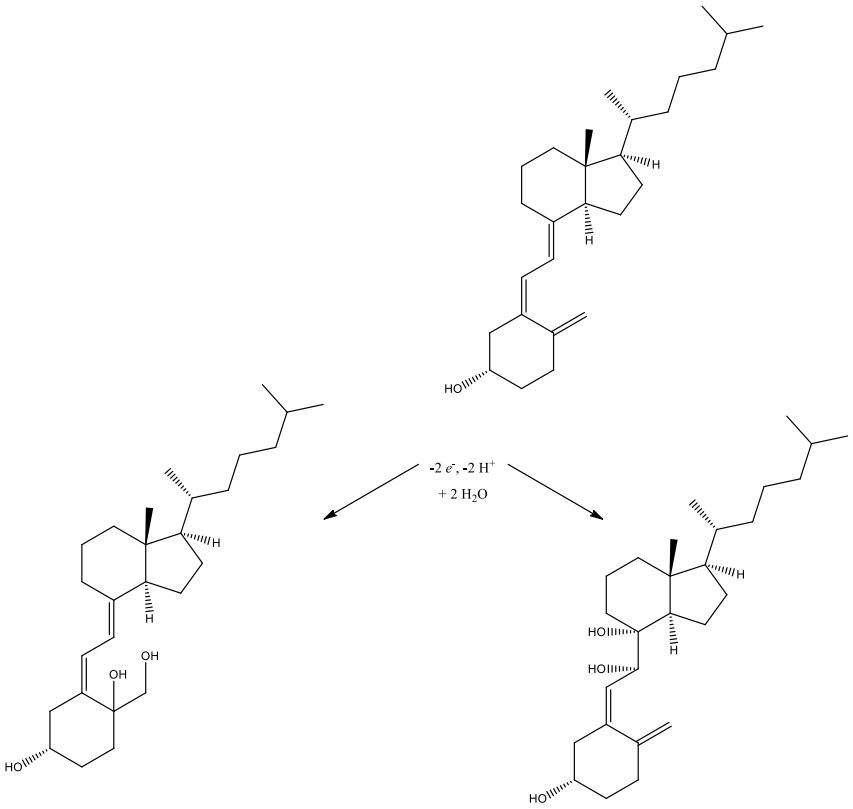

Figure S1 – Two possible oxidation mechanisms of Vitamin D_3.

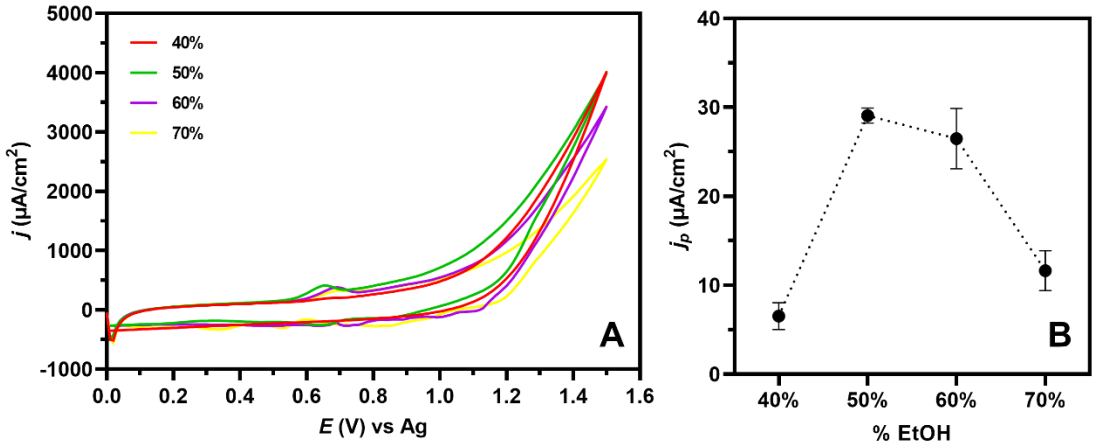

Figure S2 – Cyclic voltammograms of 0.90 mmol L^{-1} vitamin D_3 in 0.1 M $LiClO_4$ prepared in different proportions of ethanol/water using a SPCE. Voltamograms were measured between 0 V and + 1.5 V; scan rate of 50 mV s^{-1}; step potential of 10 mV. Three replicates were performed for each ethanol content.

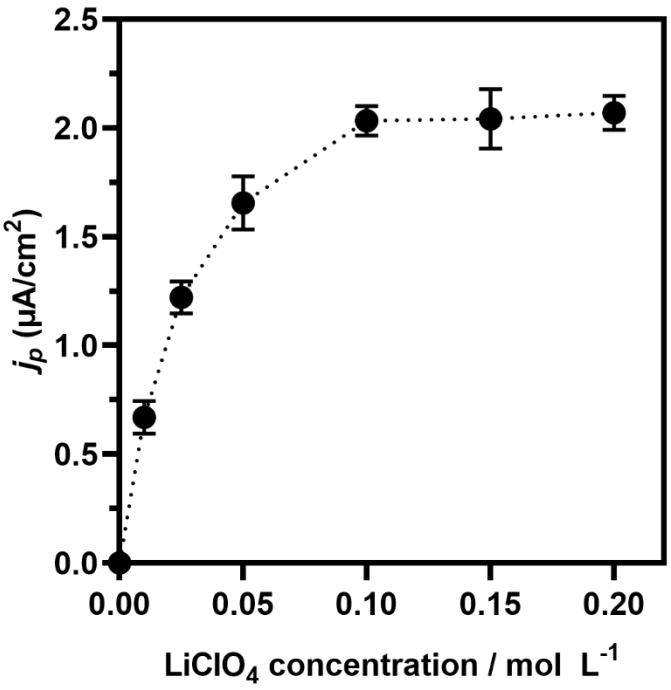

Figure S3 – Dependence of peak current on the concentration of lithium perchlorate in the supporting electrolyte solution, prepared in 50/50 ethanol/water. Measurements, in triplicate, were performed on the GCE system by SWV on a 0.1 mmol L^{-1} Vitamin D_3 solution. Voltammograms were measured between 0 V and + 1.5 V; frequency of 50 Hz; amplitude of 50 mV and step potential of 5 mV.

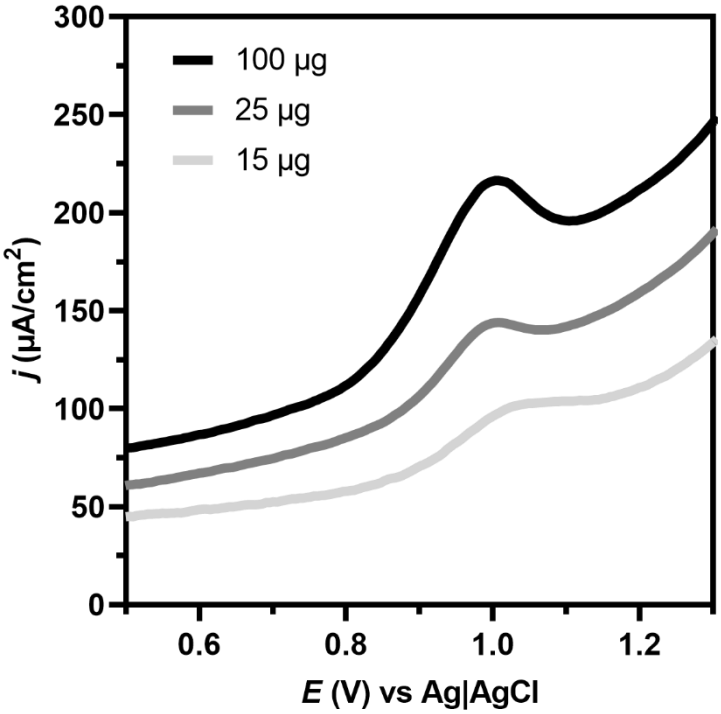

Figure S4 - Representative square-wave voltammograms on the GCE of the analysed Vitamin D_3 samples, obtained in 50/50 ethanol/water solution. SWV was performed using the optimized electrochemical conditions.